



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,998	04/27/2001	Joseph A. Zierolf	200017 USA	1645
7590	07/28/2004		EXAMINER LABAZE, EDWYN	
Jack E. Ebel 11735 Applewood Knolls Drive Lakewood, CO 80215			ART UNIT 2876	PAPER NUMBER

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/843,998

Applicant(s)

ZIEROLF, JOSEPH A.

Examiner

EDWYN LABAZE

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-11, 14-16, 18, 19, 21-27, 30-36, 38-47 and 50-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-11, 14-16, 18, 19, 21-27, 30-36, 38-47, 50-55 and 70-72 is/are allowed.
- 6) ☒ Claim(s) 56-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Receipt is acknowledged of amendments filed 5/15/2004.
2. Claims 2-11, 14-16, 18-19, 21-27, 30-36, 38-47, and 50-72 are presented for examination.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 56, 60-62, 66-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Tuttle (U.S. 6,097,301).

Re claims 56, 62: Tuttle discloses RF identification system with restricted range, which includes passing a transceiver 20 in proximity to an asset [the limitation “an asset is a very broad term” and is defined as anything of value. Herein the asset is disclosed as a suitcase] having a

Art Unit: 2876

responding device 16 [herein disclosed as a radio frequency device/tag] (col.1, lines 60+) and an antenna 30 electrically connected to the responding device so as to permit communication between the transceiver and the responding device via the antenna (col.4, lines 65+), further discloses the responding device in proximity to each other without regard to the rotational orientation (col.7, lines 40+).

Re claims 60, 66: Tuttle teaches a system and method, wherein responding device is a radio frequency identification device/tag 16 (col.3, lines 10+).

Re claims 61, 67: Tuttle discloses a system and method, wherein the radio frequency identification device/tag 16 is passive (col.1, lines 24+; col.7, lines 21+).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 68-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Dailey et al. (U.S. 5,160, 925).

Re claim 68: Dailey et al. discloses short hop communication for downhole MWD system, which includes passing an asset having a responding device [which could be a transponder or interrogator or sensor 80] connected thereto within a transceiver 45 having a generally annular [ring shaped] antenna 27 [as shown in fig. # 6] so as to permit communication between the transceiver and said responding device via the antenna (col.17, lines 15+).

Re claim 69: Dailey et al. teaches a system and method, wherein the asset is tubular (col.18, lines 25+) and the step of passing occurs without regard to the rotational orientation of the tubular (col.11, lines 43+).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 57-59, 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orban et al. (U.S. 5,354,956) in view of Tuttle (U.S. 6,097,301).

Orban et al. discloses ultrasonic measurement apparatus, which includes a tubular 21 (as shown in figs. # 1 & 1A), two transceivers 45, 46 located on the exterior of the asset and sensor 54 [which also is disclosed as a transceiver] passed through the interior of the asset [as shown in fig. # 2A, 2B] (col.10, lines 25-67).

Orban et al. fails to disclose a radio frequency identification device and an antenna electrically connected to the radio frequency device to permit communication between the transceiver and the antenna.

Tuttle teaches RF identification system with restricted range, which includes a responding device 16 [herein disclosed as a radio frequency device/tag] (col.1, lines 60+) and an antenna 30 electrically connected to the responding device so as to permit communication between the transceiver and the responding device via the antenna (col.4, lines 65+).

In view of Tuttle's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ into the teachings of Orban et al. a radio frequency device and an antenna to permit communication between the transceiver and the responding device. Furthermore such modification would provide an alternative means of

Art Unit: 2876

measuring/tracking the fluid level and determining the characteristics (position, depth and the like) of the drilling string. Moreover, such modification would have been an obvious extension as taught by Orban et al., therefore an obvious expedient.

### ***Allowable Subject Matter***

8. Claims 70-72, 2-11, 14-16, 18-19, 21-27, 30-36, 38-47, 50-55 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art of record teaches a well perforator system and method, comprising of a responding device, which is a radio frequency identification device with passive communicating by means of electromagnetic energy, an antenna that extends substantially around the outer periphery, a groove or conduit on the outer surface in the form of an annular or a ling-shaped, and extended around the outer periphery, and that the assembly has a sealant positioned on each side of the housing and secures the antenna, also a second antenna but fails to teach a second antenna electrically connected with a responding device along the inner periphery of the tubular. These limitations in conjunction with other limitations in the claimed invention were not shown by the prior art of record.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 56-69 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2876

Berthon (U.S. 5,864,323) discloses ring antennas for resonant circuits.

Hay et al. (U.S. 6,531,871) teaches extension assembly for an electromagnetic antenna and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (571) 272-2395. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

el  
Edwyn Labaze  
Patent Examiner  
Art Unit 2876  
July 19, 2004



**THIEN M. LE**  
**PRIMARY EXAMINER**